

What is claimed is:

1. A wheelchair comprising:
one or more devices for sensing an angle of a surface on which the wheelchair is supported;
a controller receiving input from the one or more devices, wherein the input corresponds to an angle of a surface on which the wheelchair is supported; and
at least one of either a control algorithm or look up table used by the controller to control drive parameters of the wheelchair according to the input from the one or more devices.
2. The wheelchair of claim 1, wherein the one or more devices are absolute angle sensors.
3. The wheelchair of claim 1, wherein the one or more devices are on-board inclinometers.
4. The wheelchair of claim 1, wherein the algorithm is a mathematical control algorithm.
5. The wheelchair of claim 1, wherein the drive parameters controlled by the controller include one or more of wheelchair acceleration, wheelchair deceleration, turning acceleration or deceleration and turning deceleration, velocity, or turning radius.
6. The wheelchair of claim 1, wherein the drive parameters controlled by the controller include one or more of maximum wheelchair acceleration, maximum wheelchair deceleration, maximum turning acceleration or deceleration, maximum velocity, or minimum turning radius.

7. A wheelchair comprising:
one or more devices for sensing at least one of a pitch angle or a roll angle of a surface on which the wheelchair is supported;
a controller receiving input from the one or more devices, wherein the controller prevents the wheelchair from changing to a less stable configuration when the controller senses an input from at least one of the one or more device indicating that the wheelchair is on a supporting surface with sufficient incline.
8. The wheelchair of claim 7, wherein the controller prevents the wheelchair from changing from a configuration supporting a wheelchair occupant in a seated position to a configuration supporting a wheelchair in one of a reclined, tilted, lifted, or standing position when the controller senses an input from at least one of the one or more device indicating that the wheelchair is on a supporting surface with sufficient incline.
9. The wheelchair of claim 7, wherein the one or more devices are on-board absolute angle sensors.
10. The wheelchair of claim 7, wherein the one or more devices are on-board inclinometers.

11. A wheelchair comprising:
a frame;
one or more drive wheels supporting the frame relative to a supporting surface;
one or more drive motors for driving the one or more drive wheels;
one or more devices for sensing the angle of the supporting surface; and
a controller connected to the one or more sensing devices for receiving input data from the one or more sensing devices corresponding to the angle of the supporting surface, wherein the controller controls drive parameters of the one or more drive motors according to a combination of input data including the input data from the sensing devices and input data from the one or more drive motors corresponding to the velocity of the drive motors, and wherein the drive parameters controlled by the controller include one or more of wheelchair acceleration, deceleration, turning acceleration or deceleration, velocity, or turning radius.

12. The wheelchair of claim 11, wherein the wheelchair is adapted to be configured to various configurations and the controller prevents the wheelchair from changing to a less stable one of the configurations when the controller senses an input from at least one of the one or more devices indicating that the wheelchair is on a supporting surface with sufficient incline.

13. The wheelchair of claim 11, wherein the wheelchair is adapted to be configured to various configurations and the controller prevents the wheelchair from changing from a configuration supporting a wheelchair occupant in a seated position to a configuration supporting a wheelchair in one of a reclined, tilted, lifted, or standing position when the controller senses an input from at least one of the one or more device indicating that the wheelchair is on a supporting surface with sufficient incline.

14. The wheelchair of claim 11, further comprising an articulating seat, the controller receiving input data from the articulating seat corresponding to the position of the seat and further controlling the articulating seat according to the combination of input data and the input data from the articulating seat.

15. The wheelchair of claim 14, wherein the articulating seat has a recline actuator decoder and the input data from the articulating seat is sensed by the controller from a recline actuator decoder.

16. The wheelchair of claim 11, further comprising one or more steering motors at least one of the one or more drive wheels, the controller further controlling parameters of the one or more steering motors according to the combination of input data.